WHAT'S YOUR *Diagnosis?*

CLINICAL-PATHOLOGICAL CONFERENCES

Polk Hall, Civic Auditorium, San Francisco
Monday, May 2, at 2:00 p.m.
DWIGHT L. WILBUR, M.D., San Francisco, *Moderator*

CASE 1

Clinicians: **Theodore E. Woodward, M.D., Baltimore, and Arthur L. Bloomfield, M.D., San Francisco.**
Consulting Radiologist: **L. Henry Garland, M.D., San Francisco.**
Pathologist: **Warren L. Bostick, M.D., San Francisco.**

In April 1954, a 39-year-old, white businessman entered the hospital on the seventh day of an acute febrile illness which had begun with malaise, sore throat, and an elevation of oral temperature to approximately 102° F. He also complained of nausea, vomiting, hiccuping, and epistaxis. He had developed a cough which was productive of blood-streaked sputum and had noticed frequent loose stools of normal color. The patient was hospitalized when it was discovered that the sclera of his eyes were of a slight yellow tint.

PAST HISTORY

In 1940 the patient had an acute, tender enlargement of the right epididymis of two weeks duration, followed by residual swelling. The acute swelling, with redness and tenderness, had recurred one week before his admission to the hospital. There was no history of excessive intake of alcohol or of known hepatotoxins.

PHYSICAL EXAMINATION

Temperature, 101° F., pulse 96, respirations 30, blood pressure 130/70 mm. of mercury.

Examination on entry to the hospital revealed an acutely ill patient in obvious respiratory distress. He was severely dehydrated and somewhat confused.

Head. The conjunctivas were conspicuously injected, and the sclerae moderately icteric. The nose contained a small amount of dried blood. The pharynx was intensely injected, and there was an inspissated exudate on the posterior wall. There was no rigidity of the neck.

Thorax. On percussion, the heart was not enlarged, and no murmurs or arrhythmias were detected. On examination of the chest, scattered areas of subcrepitant rales and bronchial breathing were heard.

Abdomen. A blunt hepatic margin, not tender, was felt 7 cm. below the right costal margin. The spleen was not palpable. The scrotal skin was red and indurated; the right testis was enlarged, measuring 3 x 4 x 4 cm.; most of the swelling was in the posterior-superior pole.

Rectal. Examination showed no abnormalities.

Extremities. The deep tendon reflexes were bilaterally hyperactive, and ankle clonus was present.

Laboratory. Hemoglobin 14.5 gm. per 100 cc. Leukocytes 5,000 per cu. mm. The differential count showed 41 per cent lymphocytes; some were large atypical forms and had fenestrated nuclei. The urine was amber and cloudy and contained 2+ alb. and a few leukocytes. The icterus index was 28 units; cephalin flocculation, 1+, serum alb. 2.1 gm./100 ml.; serum glob. 2.3 gm. per 100 ml. The albumin-globulin ratio was 0.9. Pharyngeal smears showed a small number of Gram-negative rods and a few Gram-positive cocci. The prothrombin concentration was 40 per cent. Agglutinations were negative in all dilutions for heterophile antibodies, typhoid, paratyphoid A and B, brucellosis and tularemia. A coccidioidin skin test was negative. Culture of the blood revealed no growth during a 14-day period.

X-Ray Examination. Roentgenograms of the chest were interpreted as showing a central pneumonia of the upper lobe of the right lung and severe bronchitis at the base of both lungs.

HOSPITAL COURSE

The clinical course was unfavorable and was marked by complete disorientation, generalized mild clonus and positive extensor plantar responses. The patient developed frank hematemesis, increasing epistaxis, and the icterus increased. Examination of the cerebrospinal fluid at this time showed it to be normal. The sputum became thick and brownish and, when cultured, yielded a heavy growth of Monilia. No discrete areas of pulmonary consolidation developed, but scattered fine rales persisted. Periumbilical ecchymosis appeared and became progressively more severe. The abdomen became distended. Three subsequent agglutination tests for leptospirosis icterohemorrhagica and leptospirosis canicola, however, were negative. The complement fixation reaction with Q-fever antigen was negative. The leukocyte count rose from 5,000 per cu. mm. at the time of admission to 22,000 per cu. mm. shortly

before death, and a persistent lymphocytosis was noted throughout hospitalization.

The patient became progressively worse and developed evidence of renal insufficiency. The nonprotein nitrogen of the blood was 80 mg. per 100 ml., and the urea nitrogen was 30 mg. per 100 ml. Loss of blood, which was evidenced by bright red blood from the rectum and dark, tarry stools, was replaced by transfusions. Despite treatment, including the administration of aureomycin, penicillin, streptomycin in doses of 0.25 gm. every four hours during the last four days of his illness, and lipotropic substances, the patient became stuporous on the fifteenth day of illness and died.

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CASE 2

Clinicians: **Claude E. Welch, M.D., Boston, and F. Avery Jones, M.D., London.**

Consulting Radiologist: **L. Henry Garland, M.D., San Francisco.**

Pathologist: **Sidney C. Madden, M.D., Los Angeles.**

The patient was a 63-year-old Italian male tailor. The chief complaints were hunger pains in the stomach for three years, worse for the past two months. The patient noted weakness on standing up.

PRESENT ILLNESS

About three years ago a mild burning in the epigastrium began to appear about three hours after meals. It was relieved by taking milk and food but not by soda. Although this distress had increased during the preceding two months, even at the time of observation the pain was mild. However, about two weeks before observation nausea and vomiting of undigested food began to occur 10 minutes after meals. No coffee grounds material had been seen. An x-ray study of the stomach two weeks before admission was said to be normal. During the past week stools were tarry. The patient said he was weak upon standing up. Three days before admittance the patient coughed up a small blood clot "probably from the back of the throat." A weight loss of 10 pounds during the past two months was reported.

PAST HISTORY

There was no history of gastrointestinal bleeding, operations or alcoholism. The patient had taken three straight shots of gin for pain one week before admission. No soreness of the tongue, diarrhea, constipation, jaundice, thoracic pain, night sweats or swelling of ankles had been noted. The patient smoked one to two packs of cigarettes daily plus a pipe and Italian cigars. A non-productive cough had been present for three months. At age 16 the patient had shifting joint pains and stayed three months in a hospital. He had had no known heart trouble then or since. There was no history of neurological abnormalities.

PHYSICAL EXAMINATION

The temperature was 98.6 degrees F., the pulse rate 90, the respiration 28, and the blood pressure 140 over 70 mm. of mercury. The patient was pale, and he appeared to be well developed, well nourished and not in acute distress. No spider angiomata, icterus or lymph node enlargement was noted. The tongue was coated. The lungs were clear. There were no abnormalities in the size or the sounds of the heart. Mild tenderness was noted in the right epigastrium. Upon rectal examination, tarry fecal matter was observed. The prostate was normal. No neurological abnormalities were observed.

Laboratory. On admission the hemoglobin was 9.1 gm. per 100 cc. of blood. There were 2,840,000 erythrocytes per cu. mm. and leukocytes numbered 13,200 per cu. mm.—6 per cent stab cells, 54 per cent segmented cells and 40 per cent lymphocytes. Nucleated erythrocytes were present. Pronounced hypochromia was noted. Platelets were adequate. The urine contained 3 to 5 leukocytes per high power field.

HOSPITAL COURSE

Transfusion of whole blood was started three hours after admission; despite a mild reaction 1500 ml. was given. Hemoglobin was not raised significantly at first, but by the end of the second day after admission and after another 2000 ml. of blood the hemoglobin content reached 12.6 gm. per 100 cc.

On the third day in the hospital a slightly tender mass was felt in the right epigastrium, possibly in the liver, about two fingerbreadths down. The blood pressure, which fell during the transfusion reaction to 100 over 60 mm. of mercury, stabilized there. The body temperature rose slowly to 102.8 degrees F. during the first two days and there was accompanying cough. Right lower lobe dullness and rales at both lung bases were noted on the third day and penicillin was given intramuscularly, 600,000 units twice a day. A film of the chest taken with portable x-ray equipment on the fourth day showed pulmonary congestion and some right pleural effusion. The body temperature returned to normal on the sixth day. Cephalin flocculation was four plus, and the result of a thymol flocculation test was negative.

After the tarry stool on admission no evidence of bleeding was noted until bright blood appeared in the feces on the sixth day. Upon examination a prolapsed internal hemorrhoid was observed and the rectum was packed with cotton. The bleeding stopped. The hemoglobin content of the blood on the sixth day was 9.1 gm. per 100 cc. and an additional liter of whole blood was infused. The prothrombin time at this time was 54 per cent of normal. Vitamin K was given.

On the seventh day the patient had urinary burning. A catheter was inserted into the bladder and 1300 ml. of urine flowed out, clear except for bleeding near the close. Pyridium® and later Gantrisin® were given. Some bleeding through the catheter

continued during the next two days. A surgical consultant advised operation if active bleeding recurred.

On the tenth day the stools again were tarry. The hemoglobin content of the circulating blood was 5.8 gm. per 100 cc. After transfusion of five units of blood in the succeeding 24 hours the hemoglobin was 9.1 gm. Ecchymoses appeared about the sites of puncture for transfusion. Leukocytes at this time numbered 7,050 per cu. mm. of blood and the platelet content was slightly diminished. Prothrombin time was 88 per cent of normal. Bleeding time was five minutes and clotting time eight minutes.

From the eleventh to the sixteenth day an average of one liter of blood daily was given and the hemoglobin was maintained between 8 and 10 gm. per 100 cc. An upper gastrointestinal series by the Hampton technique revealed no gastric or duodenal lesion although there was a suggestion of an incisura of the duodenal cap. The bleeding time and clotting time remained elevated and the plasma fibrinogen was found to be 150 mg. per 100 cc. and the serum bilirubin 1.2 mg. per 100 cc. Metamyelocytes were observed in a smear and the number of nucleated erythrocytes increased. Blood continued to appear in the urine and in the stools.

On the seventeenth day while transfusions were continuing the patient became lethargic, then comatose. The lungs appeared clear. The blood pressure was 180 over 80 mm. of mercury. Babinski and Hoffman signs and sustained ankle clonus were present on both sides. Superficial reflexes were absent. The pupils were equal in size and in reaction to light. The pulse rate increased to 150 per minute. The patient vomited a large amount of dark blood and died three hours later.